

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Jose S. Garcia on June 29, 2010.

An examiner's amendment to the record appears below:

- In claim 1, line 13 please delete, ---and---
- In claim 1, line 14, please insert ---wherein the optics further include a quarter-wave plate positioned to receive as an input the light beam with the first polarization and output a beam in a direction normally incident to the surface, the reflected beam from the surface being reflected by the quarter-wave plate towards the position sensitive detector with the second polarization; and---
- Claim 5 has been canceled.
- In claim 11, line 16, please delete, ---and---
- In claim 11, line 17, please insert ---wherein the changing the polarization includes passing the reflected beam through a quarter-wave plate that

changes the polarization of the reflected beam to the second polarization from the first polarization---

- Claim 15 has been canceled.
- In claim 21, line 15, please insert --- wherein the optics further include a quarter-wave plate positioned to receive as an input the light beam with the first polarization from the polarizing beam splitter and output a beam that is normally incident of the surface, with a reflected beam from the surface having the second polarization and directed by the quarter-wave plate through the polarizing beam splitter in a direction normal to the surface towards the position sensitive detector; ---
- Claim 22 has been canceled.

***Allowable Subject Matter***

Claims 1, 6-11, 16-18 and 21 are allowed.

As to claims 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious wherein the optics further include a quarter-wave plate positioned to receive as an input the light beam with the first polarization and output a beam in a direction normally incident to the surface, the reflected beam from the surface being reflected by the quarter-wave plate towards the position sensitive detector with the second polarization, in combination with the rest of the limitations of the claim.

Claims 6-10 are allowable by virtue of their dependency.

As to claims 11, the prior art of record, taken alone or in combination, fails to disclose or render obvious wherein the changing the polarization includes passing the reflected beam through a quarter-wave plate that changes the polarization of the reflected beam to the second polarization from the first polarization, in combination with the rest of the limitations of the claim. Claims 16-18 are allowable by virtue of their dependency.

As to claims 21, the prior art of record, taken alone or in combination, fails to disclose or render obvious wherein the optics further include a quarter-wave plate positioned to receive as an input the light beam with the first polarization from the polarizing beam splitter and output a beam that is normally incident of the surface, with a reflected beam from the surface having the second polarization and directed by the quarter-wave plate through the polarizing beam splitter in a direction normal to the

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surface towards the position sensitive detector, in combination with the rest of the limitations of the claim.

The closest prior art references of Baker (4,845,356) (fig. 1) and Toida (5,428,447) discloses an apparatus for measuring surface topography of a surface. However Townsend fail to disclose, teach or suggest wherein the optics further include a quarter-wave plate positioned to receive as an input the light beam with the first polarization and output a beam in a direction normally incident to the surface, the reflected beam from the surface being reflected by the quarter-wave plate towards the position sensitive detector with the second polarization.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on (571) 272-2287. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi

June 30, 2010

/TARIFUR R CHOWDHURY/

Supervisory Patent Examiner, Art Unit 2886